

Attorney Docket No. P70926US0
Application No. 10/553,877

Amendments to the claims:

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of claims:

Claim 1 (currently amended): A device for assistance in the selection of a therapeutic tubular compression orthosis made from an elastic material and in adapting same to the morphology of a limb for which the orthosis is intended, characterized in that it comprises:

– means (26) for establishing a first file

containing data representative of the morphological characteristics of the limb (30), this first data file comprising the coordinates, in a three-dimensional space, of a array of points (68) distributed on the surface of the limb along a succession of contours (66) defined at different successive coordinates (Z) of that limb;

– means (10) for establishing a second file

containing data representative of the dimensional and rheological characteristics of the orthosis defined at different successive coordinates (Z) of that orthosis and giving the elongation of the orthosis resulting from the tension applied to said orthosis;

– compression simulation means (48) able to calculate the compression pressure at a plurality of points (68) of said array from data contained in the first and second files by application of

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Laplace's law at the plurality of points, as a measure of compression pressure on the limb (30) by the orthosis (70) if applied over the limb determine, using data from the first and second files, compression pressure values that are liable to be exerted by the orthosis on the limb at a plurality of points of said array; and

– means (50) for displaying said pressure values determined by the compression simulation means.

Claim 2 (original): The device of claim 1, wherein the second data file contains data for the flat width (L_0) of the orthosis at said successive coordinates and data ($\Delta x/\Delta f$) representative of the deformation characteristic of the orthosis as a function of the tension exerted thereon between points situated at consecutive coordinates.

Claim 3 (currently amended): The device of claim 1, further comprising designation means enabling an operator of the device to designate a point of the array and to command the pressure value display means to display the value of the pressure calculated at the designated point (78 82).

Claim 4 (currently amended): The device of claim 1, further comprising designation means enabling an operator of the device to designate a coordinate of the array and to command the pressure value display means to display the pressure value calculated at the various points of a the contour of a the section cross-section of the limb situated at the designated coordinate (78).

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Claim 5 (original): The device of claim 1, wherein the display means comprise graphical means able to display a three-dimensional graphical representation (52) of the limb and to associate locally with that graphical representation the pressure values calculated at the various points of said array.

Claim 6 (currently amended): The device of claim 1, wherein the display means comprise graphical means able to display a two-dimensional graphical representation (58) of a cross-section section of the limb and to associate locally with that graphical representation the pressure values calculated at the various points of the a contour of the cross-section that section.

Claim 7 (previously presented): The device of claim 5, wherein the graphical means associate the calculated pressure values with the graphical representation by superimposing a coding by grey levels or false colours of the pressure calculated at those points on said graphical representation at the location of the various points.

Claim 8 (currently amended): The device of claim 1, wherein the display means comprise graphical means able to display a characteristic (62) giving a the variation, as a function of angular position, of the pressure calculated at the various points of a the contour of a cross-section section of the limb situated at a given coordinate.

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Claim 9 (currently amended): The device of claim 1, wherein:

- the simulation means are also able to determine average values of the compression pressure at points situated at the same coordinate, and
- the display means comprise graphical means able to display a characteristic (56; 80) giving a the variation, as a function of the coordinate, of the calculated mean compression pressure.